

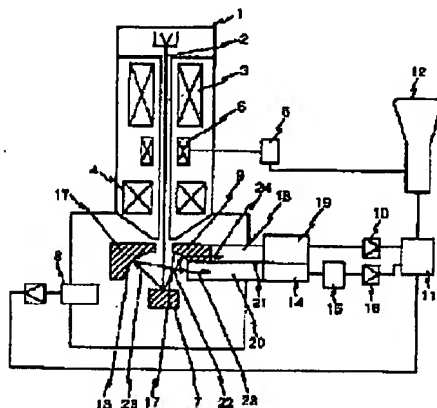
SCANNING ELECTRON MICROSCOPE

Publication number: JP11096956
Publication date: 1999-04-09
Inventor: SUZUKI HIROMASA; ITO MASUHIRO
Applicant: HITACHI LTD; HITACHI SCIENCE SYSTEMS LTD
Classification:
- International: G01N23/20; G01N21/62; G01N23/225; H01J37/244; H01J37/28; G01N23/20; G01N21/62; G01N23/22; H01J37/244; H01J37/28; (IPC1-7): H01J37/244; G01N21/62; G01N23/20; G01N23/225; H01J37/28
- European:
Application number: JP19970256455 19970922
Priority number(s): JP19970256455 19970922

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Abstract of JP11096956

PROBLEM TO BE SOLVED: To observe a cathode luminescence image and a reflected electron image simultaneously by making a reflected electron detector and an optical detector an identical detector. **SOLUTION:** An optical detector for detecting a cathode luminescence light 23 generated from a surface of a sample 7 by irradiating an electron beam 2 and a reflected electron detector 9 for detecting a reflected electron 22 are composed to be an identical detector. By using this, the luminescence light 23 is reflected by an aluminum vapor deposited mirror 13 formed on a surface of phosphor or a scintillator 17. The reflected electron 22 of the sample 7 penetrates the aluminum vapor deposited mirror 13, is irradiated to the scintillator 17, and is converted to a scintillator excitation light 24. As the luminescence light 23 cannot penetrate the aluminum vapor deposited mirror 13, the reflected electron detector 9 is not disturbed. As the scintillator excitation light 24 does not penetrate the aluminum vapor deposited mirror 13, the optical detector for detecting the cathode luminescence light 23 is not disturbed.



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Publication number: DE4009692

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Inventor: ROBINSON VIVIAN NOEL EDWARD (AU)

Applicant: ROBINSON VIVIAN N E (AU)

Classification:

- International: H01J37/244; H01J37/244; (IPC1-7): G01T1/20;
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- European: H01J37/244

Application number: DE19904009692 19900327

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Also published as:

US5043583 (A1)

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Abstract not available for DE4009692

Abstract of corresponding document: GB2229854

An electron detector, eg. for use in a scanning electron microscope for detecting low energy backscattered electrons as well as secondary electrons, comprises a scintillator having a fine metal mesh grid either disposed on active surface of the scintillator or spaced therefrom by up to 2mm. The metal mesh, typically formed of Ni, Au, Cu or Al, may be clamped to a plastic scintillation material or bonded thereto using a scintillator glueing process or a heat fusion process and may be connected to a fixed or variable potential of 0.1-5.0 KV or may be earthed.